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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 20

Comple	Complete if Known					
Application Number 10/784,911						
Filing Date	02/23/2004					
First Named Inventor	Xu et al.					
Group Art Unit	1713					
Examiner Name	Satya B. Sastri					
Attorney Docket Number	PA115-57-03					

	0	U.S. Patent De		Name of Patentee or Applicant	Date of Publication of	Pages, Columns, Lines,
Examiner Initials*	Cite No. ¹	Number	Kind Code ² (if known)	of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear
ICCE	B1	3,527,062		Bilinski et al.	09-08-1970	
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	В3	3,807,027		Heisler	04-30-1974	
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	B5	3,811,665		Seelig	05-21-1974	
1	B6	4,062,600		Wyse	12-13-1977	
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	B9	4,119,688		Hiraoka	10-10-1978	
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	B11	4,155,169		Drake et al.	05-22-1979	
	B12	4,201,800		Alcorn et al.	05-06-1980	
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	B16	4,337,579		De Fazio	07-06-1982	
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	B23	4,544,572		Sandvig et al.	10-01-1985	
	B24	4,552,832		Blume et al.	11-12-1985	
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	B26	4,600,309		Fay	07-15-1986 ·	
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icle	B34	4,737,425		LIN et al.	04-12-1988 V	
xaminer Signature		100)		Date Considered	3/8/01

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Complete if Known Substitute for form 1449A/PTO 10/784,911 **Application Number** INFORMATION DISCLOSURE 02/23/2004 Filing Date STATEMENT BY APPLICANT **First Named Inventor** Xu et al. 1713 Group Art Unit (use as many sheets as necessary) **Examiner Name** Satya B. Sastri 20 2 PA115-57-03 Sheet of Attorney Docket Number

Examiner Initials*	Cite No.1		ent Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
12le	B35	4,763,886		Takei	08-16-1988	
	B36	4,808,511		Holmes	02-28-1989	
	B37	4,826,943		Ito et al.	05-02-1989	-
	B38	4,846,931	•	Gmitter et al.	07-11-1989	
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	B49	4,964,945		Calhoun	10-23-1990	
	B50	4,976,818		Hashimoto et al.	12-11-1990	
	B51	4,980,316		Huebner	12-25-1990	
	B52	4,999,280		Hiraoka .	03-12-1990	
	B53	5,053,318		Gulla et al.	10-01-1991	·
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	B62	5,148,036		Matsugu et al.	09-15-1992	
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Sheet

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of

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PA115-57-03

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Complete if Known Substitute for form 1449A/PTO 10/784,911 **Application Number** INFORMATION DISCLOSURE 02/23/2004 Filing Date STATEMENT BY APPLICANT **First Named Inventor** Xu et al. 1713 Group Art Unit (use as many sheets as necessary) Satya B. Sastri **Examiner Name** 20

Attorney Docket Number

				U.S. PATENT DOCUMENT	S	•
Examiner Initials*	Cite No.1	U.S. Patent Doc	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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	B70	5,206,983		Guckel et al.	05-04-1993	
	B71	5,212,147		Sheats	05-18-1993	
	B72	5,234,793		Sebald et al.	08-10-1993	
	B73	5,240,550		Boehnke et al.	08-31-1993	
· ·	B74	5,240,878	1	Fizsimmons et al.	08-31-1993	
	B75	5,242,711		DeNatale et al.	09-07-1993	
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	B83	5,328,810	7	Lowrey et al.	07-12-1994	
	B84	5,330,881		Sidman et al.	07-19-1994	
	B85	5,348,616	† · · · · · · · ·	Hartman et al.	09-20-1994	
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ceu'	B102	5,458,520		DeMercurio et al.	10-17-1995	1
Examiner Signature		lu	3		Date Considered	3/18/06

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¹Unique citation designation number. 2See attached Kinds of U.S. Patent Documents. 3Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). *For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. *Applicant is to place a check mark here if English language Translation is attached.

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Substitute fo	or form 1449A/F	<u></u> РТО		Comple	te if Known
				Application Number	10/784,911
INFOR	RMATION	DISCL	OSURE	Filing Date	02/23/2004
STATE	STATEMENT BY APPLICANT			First Named Inventor	Xu et al.
				Group Art Unit	1713
(use as many sheets as necessary)				Examiner Name	Satya B. Sastri
Sheet	4	of	20	Attorney Docket Number	PA115-57-03

ixaminer nitials*	Cite No.1		ument	41	Date of Publication of	Pages, Columns, Lines,
		Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Retevant Passages or Relevant Figures Appear
ine	B103	5,468,542		Crouch	11-21-1995	
	B104	5,480,047		Tanigawa et al.	01-02-1996	
	B105	5,512,131		Kumar et al.	04-30-1996	
	B106	5,515,167		Ledger et al.	05-07-1996	
	B107	5,523,878		Wallace et al.	06-04-1996	
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	B111	5,633,505		Chung et al.	05-27-1997	
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Substitute for	r form 1449A/F	то		Comple	te if Known
Substitute for form 1445741 10				Application Number	10/784,911
INFOR	MATION	DISCL	OSURE	Filing Date	02/23/2004
STATE	MENT E	SY APPL	LICANT	First Named Inventor	Xu et al.
•				Group Art Unit	1713
(use as many sheets as necessary)				Examiner Name	Satya B. Sastri
Sheet	5	of	20	Attorney Docket Number	PA115-57-03

		-	_	U.S. Patent C		U.S. PATENT DOCUMENTS	Date of Publication of	Pages, Columns, Lines,
xami iitials			Cite No.1	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear
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U			B138	5,942,871		Lee	08-24-1999	
			B139	5,948,219		Rohner	09-07-1999	
	T		B140	5,948,470		Harrison et al.	09-07-1999	
	\neg		B141	5,948,570		Komblit et al.	09-07-1999	
			B142	5,952,127		Yamanaka	09-14-1999	•
			B143	6,033,977		Gutsche et al.	03-07-2000	
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			B145	6,038,280		Rossiger et al.	03-14-2000	
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		T	B149	6,074,827		Nelson et al.	06-13-2000	
		Т	B150	6,091,485		Li et al.	07-18-2000	
		П	B151	6,096,655		Lee et al.	08-01-2000	
		Т	B152	6,117,708		Wensel	09-12-2000	
		T	B153	6,125,183		Jiawook et al.	09-26-2000	
		\top	B154	6,128,085		Buermann et al.	10-03-2000	
		T	B155	6,143,412		Schueller et al.	11-07-2000	
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		П	B160	6,188,150	.B1	Spence	02-13-2001	,
		П	B161	6,204,922	B1	Chalmers	03-20-2001	
		T	B162	6,218,316	B1	Marsh	04-17-2001	
		T	B163	6,245,581	B1	Bonser et al.	06-12-2001	
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		П	B165	6,309,580	B1	Chou	10-30-2001	
	1		B166	6,326,627	B1	Putvinski et al.	12-04-2001	
	\neg		B167	6,329,256	B1	lbok	12-11-2001	
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	T		B169	6,355,198	B1	Kim et al.	03-12-2002	
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	nine ature			10	0/		Date Considered	3/18/02

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Substitute 1	for form 1449A/PTO			Comple	te if Known
				Application Number	10/784,911
INFO	RMATION D	ISC	LOSURE	Filing Date	02/23/2004
STAT	EMENT BY	ΑP	PLICANT	First Named Inventor	Xu et al.
				Group Art Unit	1713
(L	ise as many sheets	as ne	cessary)	Examiner Name	Satya B. Sastri
Sheet	6	of	20	Attorney Docket Number	PA115-57-03

xaminer nitials*	Cite No. ¹	U.S. Patent D	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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\	B172	6,391,798	B1	DeFelice et al.	05-21-2002	
· -	B173	6,411,010	B1	Suzuki et al.	06-25-2002	
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1	B184	6,561,706	1	Singh et al.	05-13-2003	
	B185	6,565,928	B2	Sakamoto et al.	05-20-2003	
	B186	6.632,742	B2	Yang et al.	10-14-2003	
	B187	6,635,581	B2	Wong	10-21-2003	
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Substitute	for form 1449A/PT	0		Complete if Known		
				Application Number	10/784,911	
INFO	RMATION I	DISCI	OSURE	Filing Date	02/23/2004	
STAT	EMENT BY	/ APP	LICANT	First Named Inventor	Xu et al.	
				Group Art Unit	1713	
(1	use as many sheet	s as nece	essary)	Examiner Name	Satya B. Sastri	
Sheet	7	of	20	Attorney Docket Number	PA115-57-03	

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				Application Number	10/784,911	
INFO	RMATION D	ISC	LOSURE	Filing Date	02/23/2004	
STAT	TEMENT BY	AP	PLICANT	First Named Inventor	Xu et al.	
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Complete if Known Substitute for form 1449B/PTO 10/784,911 **Application Number** INFORMATION DISCLOSURE 02-23-2004 Filing Date STATEMENT BY APPLICANT Xu et al. **First Named Inventor** 1713 **Group Art Unit** (use as many sheets as necessary) Satya B. Sastri **Examiner Name** 20 Attorney Docket Number PA115-57-03

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				Group Art Unit	1713	
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				Application Number	10/784,911	
INFO	RMATION	N DISCI	LOSURE	Filing Date	02/23/2004	
STAT	EMENT	BY APP	LICANT	First Named Inventor	Xu et al.	
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Sheet	13	of	20	Attorney Docket Number	PA115-57-03	

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Substi	tute for form 1449B/PT	0		Complete if Known		
				Application Number	10/784,911	
INF	ORMATION I	DIS	CLOSURE	Filing Date	02/23/2004	
STATEMENT BY APPLICANT				First Named Inventor	Xu et al.	
				Group Art Unit	1713	
	(use as many sheet	s as n	ecessary)	Examiner Name	Satya B. Sastri	
Sheet	16	of	20	Attorney Docket Number	PA115-57-03	

OTHER PRIOR	R ART - I	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
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Substit	Substitute for form 1449B/PTO			Complete if Known		
				Application Number	10/784,911	
INF	ORMATION	DISC	CLOSURE	Filing Date	02/23/2004	
STATEMENT BY APPLICANT				First Named Inventor	Xu et al.	
				Group Art Unit	1713	
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Sheet	17	of	20	Attorney Docket Number	PA115-57-03	

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				Application Number	10/784,911	
INF	ORMATION I	DIS	CLOSURE	Filing Date	02/23/2004	
STATEMENT BY APPLICANT				First Named Inventor	Xu et al.	
				Group Art Unit	1713	
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Sheet	18	of	20	Attorney Docket Number	PA115-57-03	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS								
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				Application Number	10/784,911	
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				Group Art Unit	1713 ·	
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Sheet	19	of	20	Attorney Docket Number	PA115-57-03	

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				Group Art Unit	1713	
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				1.0	Group Art Unit	1713		
	Sheet	1	of	10	Examiner Name	Sastri, Satya B.		
					Attorney Docket Number	PA115-57-03		

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	FORMATIC			APPLICATION NUMBER	10/784,911		
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a.		1		Group Art Unit	1713		
Sheet	2	of	10	Examiner Name	Sastri, Satya B.		
				Attorney Docket Number	PA115-57-03		

	•			U.S. PATENT DOCUMEN	TS	
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			1.0	Group Art Unit	1713	
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				Attorney Docket Number	PA115-57-03	

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Examiner · Initials*	Cite No.1	U.S. Patent D	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
Le4-	G35	6,114,404	`	Deeken et al.	9/5/2000	
1	G36	6,583,248	B1	Bowen	6/24/2003	
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Substitute for form 1449A/PTO				Comple	Complete if Known		
1	NFORMATIC	N DISCLOS	SURE .	APPLICATION NUMBER	10/784,911	•	
-	STATEMENT			FILING DATE	02/23/2004	-	
				FIRST NAMED INVENTOR	Xu et al.		
(0	use as many she	ets as necessai	<i>(Y)</i>	Group Art Unit	1713		
Sheet	1 4	of	10	Examiner Name	Sastri, Satya B.		
Sileet	7	l OI		Attorney Docket Number	PA115-57-03		

					N PATENT DOCUMENTS	<u> </u>		
Examiner Initials*	Cite No.1	Office 3	Foreign Patent Docum Number ⁴	entBG Kind Code ³ (if knBown)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т
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(ca-	G46	wo	87/02935		Long et al.	5/21/1987		
	G47	JP	02192045		Mineo et al.	7/27/1990	•	
	G48	JP	61-40845		Matsuo et al.	2/27/1986		
	G49	JP	2-248480		Yoneda et al.	10/4/1990		
1	G50	JР	3-90345		Nobuyoshi et al.	4/16/1991		
ce	G51	JP	9-278490		Toru et al.	10/28/1997		T
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Signature		Considered	0110106

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1	Substitute for form 1449A/PTO				Comple	te if Known
		FORMATION			APPLICATION NUMBER	10/784,911
	31	IAILWENIB	TAPPLICA		FILING DATE	02/23/2004
	(us	e as many sheets	as necessary)		FIRST NAMED INVENTOR	Xu et al.
					Group Art Unit	1713
	Sheet	5	of	10	Examiner Name	Sastri, Satya B.
					Attorney Docket Number	PA115-57-03

OTHER PRIC	OR ART	- NON PATENT LITERATURE DOCUMENTS	
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100	G52	BLOMQUIST ET AL., Fluorinated Acrylates in making Low-Loss, Low-Birefringence, and Single-Mode Optical Waveguides with Exceptional Thermo-Optic Properties, SPIE Conference on Linear Optical Properties of Waveguides and Fibers, Vol. 3799, pp. 266 - 279 7/1/1999	
(G53	ELDADA ET AL., Robust Photopolymers for MCM, Board, and Backplane Optical Interconnects, SPIE Vol. 3288, pp. 175 - 191 1/1/1998	
	G54	ELDADA ET AL., Affordable WDM Components: The Polymer Solution, SPIE Vol. 3234, pp. 161 - 174 1/1/1998	
	G55	ELDADA ET AL., Advanced Polymer Systems for Optoelectronic Integrated Circuit Applications, SPIE Vol. 3006, pp. 344 - 361 1/1/1997	
	G56	HIRAI ET AL., Abstract of Mold Surface Treatment for Imprint Lithography, Journal of Photopolymer Science and Technology, pp 457-462, vol 14, No. 3 8/1/2001	
	G57	ROOS ET AL., Abstract of Nanoimprint Lithography with a Commercial 4 Inch Bond System for Hot Embossing, Proceedings of SPIE Vol. 4343, pp. 427-435 10/1/2001	
	G58	Sol-Gel Technology, www.chemat.com/html/solgel.html 1/14/2004	
	G59	Sol-Gel Chemistry, www.prsc/usm.edu/mauritz/solgel.html 2/2/2004	
(Cle	G60	HAKOVIRTA ET AL., Optical Properties of Fluorinated Diamond-Like Carbon Films Produced by Pulsed Glow Discharge Plasma Immersion Ion Processing, Journal of Applied Physics 88(3); pp1456-1459 8/1/2000	

Examiner Signature	Date Considered	1	118/03
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and not considered. Include copy of this form with next communication to applicant.

³ Applicant's unique citation designation number (optional).

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Substitute for form 1449A/PTO				Comple	ete if Known
	ORMATION ATEMENT B			APPLICATION NUMBER	10/784,911
317	ALEMIENI D	1 APPLIC	MINI	FILING DATE	02/23/2004
(use	as many sheets	; as necessary	y)	FIRST NAMED INVENTOR	Xu et al.
				Group Art Unit	1713
Sheet	6	of	10	Examiner Name	Sastri, Satya B.
	_			Attorney Docket Number	PA115-57-03

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	G61	APPLICATION NO. 11/027,473, naming Inventors Bailey et al., entitled Release Layer Comprising Diamond-Like Carbon (DLC) or Doped DLC with Tunable Composition for Imprint Lithography Templates and Contact Masks, filed 12/30/2004	
	G62	APPLICATION NO. 10/789,319, naming Inventors Xu et al., entitled Composition for an Etching Mask Comprising a Silicon-Containing Material, filed 2/27/2004	
	G63	APPLICATION NO. 10/948,511, naming Invertors of et al., edititled Polymerization Technique to Attenuate Oxygen Inhibition of Solidification of Liquids and Composition Thereof, filed 9/23/2004	
	G64	APPLICATION NO. 10/967,740, naming Inventors Xu et al., entitled Low-K Dielectric Functional Imprinting Materials, filed 10/18/2004	
	G65	APPLICATION NO. 10/919,062, naming Inventors Xu et al., entitled Composition to Provide a Lyaer with Uniform Etch Characteristics, files 8/16/2004	
-	G66	APPLICATION NO. 10/919 224, naming Inventors Xu et al., entitled Method to Provide a Layer with Uniform Etch Characteristics, filed 8/16/2004	
	G67	APPLICATION NO 10/978,285, raming Inventors Willson et al., entitled Step and Flash Imprint Lithography, filed 10/29/2004	
	G68	APPLICATION NO. 11/062,420, naming Inventors Willson et al., entitled Step and Flash Imprint Linegraphy, filed 2/22/2005	
	G69	APPLICATION 10. 11/068,397, naming Inventors Xu et al., entitled Method of Providing Desirable Wetting and Release Characteristics between a Mold and a Polyerizable Composition, filed 2/28/2005	

Examiner Signature	100	Date Considered	3) 18/01
			1010

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Substitute fo	form 1449A/I	ग०		Comple	ete if Known
	ORMATION ATEMENT B			APPLICATION NUMBER	10/784,911
31	AI EWENT D	T APPLIC	AIV I	FILING DATE	02/23/2004
(use	as many sheets	as necessary)	FIRST NAMED INVENTOR	Xu et al.
•				Group Art Unit	1713
Sheet	7	of	10	Examiner Name	Sastri, Satya B.
	J	<u> </u>		Attorney Docket Number	PA115-57-03

OTHER PRIC	OR ART	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
·	G70	APPLICATION NO. 11/068, 174 paming Inventors Xu et al., entitled Method to Reduce Adhesion Between a Conformable Region and a Mord, fited 2/28/2005	
Icel	, G71	Data Sheet for MAK (Methyl n-Amyl Ketone), www.sp-chem.com/fine_e 1/1/2003	
	G72	Data Sheet for gamma-Glycidoxypropyltrimethoxysilane, www.powerchemical.net/3100.htm 12/5/2003	
. (G73	Silicon or Silica, www.mii.org/Minerals/photosil 3/31/2005	
lle	G74	Electronic Devices and Circuits, people.deas.harvard.edu/~jones/es154/lectures/lecture_2/materials/materials.html 3/31/2005	
	G75	Data Sheet for Cymel 303ULF, www.cytes.com	
•	G76	Data Sheet for Cycat 4040 www.cytec.com	
rus	G77	International Chemical Safety Card for p-Toluenseulfonic Acid, www.itcilo.it/english/actrav/teleam/osh/ic/104154.htm 12/5/2003	
	G78	Data Sheet for p-Toluenesulfonic Acid, NIOSH Manual of Analytical Methods (NMAM), Fourth Edition	

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Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file Inis collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449A/PTO				Complé	Complete if Known		
*****	FORMATION ATEMENT B			APPLICATION NUMBER	10/784,911		
31	AIEMENI D	T APPLIC	MIA I	FILING DATE	02/23/2004		
(us	e as many sheets	as necessary	· /)	FIRST NAMED INVENTOR	Xu et al.		
•		•	•	Group Art Unit	1713		
Sheet	8	of	10	Examiner Name	Sastri, Satya B.		
	<u> </u>			Attorney Docket Number	PA115-57-03		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	G79	Data Sheet for Dow Corning Z-6018,	
1 Clp	G80	Data Sheet for Methyl Amyl Ketone, www.arb.ca.gov/db/solvents/solvent_pages/Ketones-HTML/methyl_amyl.htm 3/31/2005	
	G81	GOLDEN ET AL., Designing Porous Low-k Dielectrics, www.reed-electronics.com/semiconductor/index.asp?layout=articlePrint&articleID=CA82824 4/6/2005	
	G82	PADOVANI ET AL., Chemically Bonded Porogens in Methylsilsesquioxane: I. Structure and Bonding, Journal of the Electrochemical Society, 149 (12) F161-F170 10/16/2002	
	G83	WOLF ET AL., Silicion Processing for the VLSI Era, Volume 1Process Technology, pp. 407-413 1/1/1986	
	G84	TANIGUCHI ET AL., Diamond Nanoimprint Lithography, Nanotechnology, 2002, vol. 13, no. 5, pp. 592-596(5) 1/1/2002	
	G85	KIYOHARA ET AL., Abstract of Plasma Etching of CVD Diamond Films using an ECR-type Oxygen Source, http://www.iop.org/EJ/abstract/0957-4484/10/4/304 9/26/2003	
	G86	WOLF ET AL., Silicon Processing for the VLSI Era, Volume 1Process Technology, pp. 541, 542, 544, 564, 565 1/1/1986	
IW	G87	Novec Fluorosurfactant FC-4432, http://multimedia.mmm.com/mws/mediawebserver.dyn?333333SQa783cMj3wMj333wyXuFiiiiH-8/4/2005	

Examiner Signature	W	Date Considered	31	19/06

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Substitute for	form 1449A/	PTO		Complete if Known		
	ORMATION			APPLICATION NUMBER	10/784,911	
. 317	ALEMENT D) AFFLIC	AITI	FILING DATE	02/23/2004	
(use	as many sheeb	s as necessar)	<i>(</i>)	FIRST NAMED	Xu et al.	
				Group Art Unit	1713	
Sheet	9	of	10	Examiner Name	Sastri, Satya B.	
	· · · · · · · · · · · · · · · · · · ·			Attorney Docket Number	PA115-57-03	

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
LUL	G88	Abstract of Japanese Patent 61-040845, 2/27/1986						
1	G89	Abstract of Japanese Patent 02-248480, 10/4/1990						
	G90	Abstract of Japanese Patent 3-090345, 4/16/1991	-					
	G91	Abstract of Japanese Patent 09-278490, 10/28/1997						
	G92	Abstract of Japanese Patent 61-040845, 2/27/1986						
1 CC	G93	Abstract of Japanese Patent 02-248480, 10/4/1990						
	G94	APPLICATION NO. 11/187,406, naming Inventors Xu, entitled Composition for adhering materials together, filed 7/22/2005						
-	G95	APPLICATION NO. 11/187,407, naming Inventors XIV entitled Method for adhering materials together, filed 7/22/2005						
1/4	-G96	XU ET AL., Development of Imprint Materials for the Step and Flash Imprint Lithography Process, SPIE Microlithography Conference 2/1/2004						

Examiner Signature	1095	Date Considered	0/18/66
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•	ORMATION ATEMENT B			APPLICATION NUMBER	10/784,911		
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(use	as many sheets	as necessary)	FIRST NAMED INVENTOR	Xu et al.		
				Group Art Unit	1713		
Sheet	10	of	10	Examiner Name	Sastri, Satya B.		
				Attorney Docket Number	PA115-57-03		

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	1	NORDQUIST ET AL., Image Placement Issues for ITO-based Step and Flash Imprint				
100	G97	Lithography Templates, J. Vac. Sci. Technol. B, pp. 695-701 3/1/2004				
icy	G98	RESNICK ET AL., Release Layers for Contact and Imprint Lithography, Semiconductor International, pp. 71-80 6/1/2002				
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Sheet 1 of 5			··	Examiner Name	Sastri, Satya B.	
				Attorney Docket Number	PA115-57-03	

		U.S. Patent De			Date of Publication of	Pages, Columns, Lines,
Examiner Initials*	Cite No. ¹	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear
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104	_ C1	6,391,217	B2	Schaffer et al.	5/21/2002	
	C2	2004/0007799	A1	Choi et al.	1/15/2004	<u> </u>
	С3	2004/0021254	A1	Sreenivasan et al.	2/5/2004	
	C4	2004/0021866	A1	Watts et al.	2/5/2004	
	C5	2004/0022888	A1	Sreenivasan et al.	2/5/2004	
	C6	2002/0177319	A1	Chou	11/28/2002	
	C7	6,518,189	B1	Chou	2/11/2003	
	С8	2004/0192041	A1 ⁻	Jeong et al.	9/30/2004	12
	C9	6,828,244	B2	Chou	12/7/2004	
	C10	6,809,356	B2	Chou	10/26/2004	
	C11	2004/0197843	A1	Chou et al.	10/7/2004	
	C12	2004/0156108	A1	Chou et al.	8/12/2004	
	C13	2004/0137734	A1	Chou et al.	7/15/2004	
	C14	2004/0131718	A1	Chou et al.	7/8/2004	
	C15	2004/0118809	A1	Chou et al.	6/24/2004	
	C16	2004/0046288	A1	Chou	3/11/2004	
	C17	2003/0080472	A1	Chou	5/1/2003	
1101	C18	2003/0034329	A1 -	Chou	2/20/2003	

Examiner		Date	2 / 10/
Signature	1/11/00	Considered	31/8/06

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Substitute (for form 1449A	VPTO		Complete if Known		
· INIC	ORMATIO	N DISCL	OCUDE	APPLICATION NUMBER	10/784,911	
	ATEMENT		-	FILING DATE	02/23/2004	
317	A I CIVICIA I	DI APPL	LICANT	FIRST NAMED INVENTOR	Xu et al.	
(u	se as many shee	ets as necessa	nry)	Group Art Unit	1713	
Sheet	Sheet 2 of 5		5	Examiner Name	Sastri, Satya B.	
	<u></u>	I		Attorney Docket Number	PA115-57-03	

				U.S. PATENT DOCUMEN	TS	
Examiner Initials*	Cite No.1	U.S. Patent Document Kind Code ² Number (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Coturms, Lines, Where Relevant Passages or Relevant Figures Appear
11 00	C19	2002/0042027	A1	Chou et al.	4/11/2002	
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	C20	10/763,885	.l	Xu et al.	1/23/2004	
•	C21	5,594,042		Glover et al.	1/14/1997	
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	C32	5,028,366		Harakal et al.	7/2/1991	
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	C34	5,849,209		Kindt-Larsen et al.	12/15/1998	
1 Ce-	C35	5,849,222		Jen et al.	12/15/1998	

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Sheet	3	of	5	Attorney Docket Number	PA115-57-03	

					PATENT DOCUMENTS			
Examiner Initials*	Cite No.1	Office	Foreign Patent Docu Number ⁴	ment Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	7
104	C36	wo	02/07199		Chou .	1/24/2002		T
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٠.	C39	wo	03/010289		Chou et al.	2/6/2003		
1	C40	wo	03/079416		Chou	9/25/2003		
ll	C41	wo	03/099536		Chou et al.	12/4/2003		

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Signature	16 55	Considered	15/18/06

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INFO	ORMATION	DISCLO	SURE	APPLICATION NUMBER	10/784,911		
STA	TEMENT B	Y APPLI	ICANT	FILING DATE	02/23/2004		
				FIRST NAMED INVENTOR	Xu et al.		
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Sheet	· 4	of	5	Examiner Name	Sastri, Satya B.		
		<u> </u>	_1	Attorney Docket Number	PA115-57-03		

OTHERPRIC	JK AKI -	NON PATENT LITERATURE DOCUMENTS	_
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
1106	C42	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
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1200	C50	Butter et al., Production and Wetting Properties of Fluorinated Diamond-Like Carbon Coatings, Thin Solid Films, 311(1-2); pp. 107-113, 12/31/1997	

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						FIRST NAMED INVENTOR	Xu et al.		
		(use as	many sheets	s as necessary	<i>(</i>)	Group Art Unit	1713		
	Sheet	- 1	5	of	5	Examiner Name	Sastri, Satya B.		
		L		1		Attorney Docket Number	PA115-57-03		

OTHER PRIOR	R ART -	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		·	
(ce	C51	Hakovirta et al., Heat Resistance of Fluorinated Diamond-Like Carbon Films, Diamond and Related Materiasl 10(8); pp. 1486-1490, 8/1/2001	
	C52	Zhu et al., The Improvement of the Oxidation Resistance of TiAl Alloys by Fluorine Plasma-Based Ion Implantation, Surface and Coatings Technology 158; pp. 502-507, 9/1/2002	
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,	C54	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	
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Examiner Signature	16000	Date Considered	3718/06
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Substitute fo	or form 1449A/PT	O		Complete If Known		
			•	Application Number	10/784,911	
INFOR	RMATION	DISC	LOSURE	Filing Date	February 23, 2004	
STATEMENT BY APPLICANT				First Named Inventor	Frank Y. Xu	
				Group Art Unit	1732	
(us	e as many sheet	s as nec	essary)	Examiner Name	Unassigned	
Sheet	1 .	of	1	Attorney Docket Number	PA115-57-03	

				U.S. PATENT DOCUMEN		
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UB	A1	6,308,580	B1	Chou	10-30-2001	
leur	A2	6,713,238	B1	Chou et al.	03-30-2004	-12
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^{**}Unique dilation designation number. **See attached Kinds of U.S. Patent Documents, **Entar Office that issued the document; by the two-tenter code (WIPO Standard ST.3). *For Japanese patent documents, the Indication of the year of the reign of the Emperor must precede the serial number of the patent document. **Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. **Applicant is to place a check mark here if English language Translation is attached.

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Title of Invention

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Application Number:

10/784911

Confirmation Number:

6149

First Named Applicant:

Frank Xu

Attorney Docket Number:

PA115-57-03

Art Unit:

1713

Examiner:

Satya B. Sastri

Search string:

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or 6774183 or 6830819 or 6802870 or 5389696).pn

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
1 cu	. 1	6468642	2002-10-22	Bray et al.	B1	1	
	2	5542978	1996-08-06	Kindt-Larsen et		·	
				al.		1	
	3	5837314	1998-11-17	Beaton et al.			
	4	6565776	2003-05-20	Li et al.	B1		
	5	6503914	2003-01-07	Benish et al.	B1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
	6	6649272	2003-11-18	Moore et al.	B2		
	7	6204343	2001-03-20	Barucha et al.	B1		
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Π	9	3810874	1974-05-14	Mitsch et al.		1	7
П	10	6737489	2004-05-18	Linert et al.	B2	. /	$\overline{}$
	11	6721529	2004-04-13	Chen et al.	B2	/	
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Π	15	6774183	2004-08-10	Palumbo et al.	B1		
	16	6830819	2004-12-14	Kaplan et al.	B2		
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Sheet	2	of	2	Examiner Name	Satya B. Sastri		
				Attorney Docket Number	PA115-57-03		

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	٦٩
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	F9	APPLICATION NO. 11/126,946, naming Inventors Chol et al., entitled Formation of Discontinuous Films During en Imprint Lithography Process, filed 5/11/2005	
,	F10	APPLICATION NO. 11/127,041, paming Inventors Sreenivasan et al., chittled Step and Repeat Imprint Lithography Processes, files 5/11/2005	
	F11	APPLICATION NO. 1/1/127,060, haming inventors Sreeningsan et al., entitled Step and Repeat Imprint Lithography Systems, filed 5/11/2005	
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